Apparatus and Methods for Adjusting the Rotational Frequency of a Scanning Device

ABSTRACT OF THE DISCLOSURE

The present invention provides methods and apparatus for adjusting the resonant frequency, scan velocity or other parameters of a pivotally functional surface such as an oscillating mirror used as the scanning engine of a laser printer or projection display. The selected parameter is adjusted by the application of tensional or compression stress to the torsional hinges of the mirror. According to one embodiment, the appropriate stress is generated by a slice of piezoelectric material bonded to the mirror device itself or to other portions of the support structure of the scanning engine.